Before the **FEDERAL COMMUNICATIONS COMMISSION**

Washington, DC 20554

Closed Captioning of Internet Protocol-Delivered)
Video Programming: Implementation of the) MB Docket No. 11-154
Twenty-First Century Communications and Video	Ó
Accessibility Act of 2010	Ó

To: The Commission

COMMENTS OF THE CONSUMER ELECTRONICS ASSOCIATION

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SUMMARY

Title II of the Twenty-First Century Communications and Video Accessibility Act ("CVAA") reflects the careful approach taken by Congress to increase the accessibility of video programming to the disability community while preserving manufacturers' and service providers' flexibility to ensure continued innovation. The Consumer Electronics Association ("CEA") hereby comments on the Commission's *NPRM* seeking to implement the closed captioning provisions of the CVAA for Internet Protocol ("IP")-delivered video programming. As seen in this and related proceedings, as well as its extensive work with the Video Programming Accessibility Advisory Committee ("VPAAC"), CEA and its member companies are committed to working closely with the Commission and the disability community, including the deaf and hard of hearing community, to provide all consumers with products and services that meet their needs.

CEA's comments focus on the scope and implementation of Section 203 of the CVAA, regarding closed captioning capability requirements for apparatus designed to receive, play back, or record video programming, including IP-enabled devices. The *NPRM* represents one of the Commission's first ventures into the regulation of online content. The Commission must fulfill its statutory mandate to increase accessibility for consumers who rely on captioning, especially those who are deaf or hard of hearing. However, it also must recognize the novel issues and questions presented in the online world.

To promote innovation, the Commission's rules should provide certainty to consumers and electronics manufacturers while still ensuring flexibility in implementation of the IP captioning requirements. To achieve the balance that Congress envisioned, the Commission must proceed cautiously; in particular, it should adhere closely to the statutory framework established in Title II of the CVAA, rather than stretching the statute in ways that would undermine important public policy goals. For example, the Commission should adopt specific minimum technical requirements to help ensure functionally equivalent but flexible IP captioning, instead of adopting the proposed ambiguous (and potentially overbroad) mandate that captioning for IP-delivered content be of "at least the same quality" as captions shown on television.

The Commission should also adopt the VPAAC Report's recommendation on a uniform IP captioning standard to promote efficiency and consumer access to IP captions. Specifically, the Commission should adopt the Society of Motion Picture and Television Engineers ("SMPTE") Timed Text ("SMPTE-TT") standard (i) as a safe harbor interchange standard and (ii) in the case of Consumer Video Players (Use Case #1), as a safe harbor delivery standard, to the extent discussed herein. Adopting SMPTE-TT as a safe harbor standard appropriately balances the goals of efficiency and consumer access with the needed flexibility to continue to innovate. Manufacturers of covered apparatus cannot be expected to support any and every possible delivery format.

In amending Sections 303(u) and 330(b) of the Communications Act and adding a new Section 303(z), Section 203 of the CVAA provides that many types of apparatus are not, or under certain circumstances may not be, subject to the captioning requirements. The Commission should recognize and apply these limitations. As an initial matter, the captioning

capability requirements apply only to apparatus designed to receive or play back video programming if satisfying those requirements is "technically feasible." Section 203 also limits the captioning requirements only to apparatus "designed to" receive, play back, or record video programming. Moreover, Section 203 only applies to apparatus that receive, play back, or record video programming transmitted by wire or radio.

In addition to the above limitations, the CVAA recognizes the challenges that manufacturers face in producing (i) apparatus designed to receive or play back video programming that use picture screens of less than 13 inches and (ii) apparatus designed to record video programming. The statute provides that these types of apparatus must comply with applicable captioning capability requirements "only if" such compliance is "achievable." Consistent with the *ACS Order*, the implementing rules should provide that the Commission's evaluation of a manufacturer's achievability determinations be made on a case-by-case basis, giving each statutory factor equal weight.

The "display-only" exemption should apply to any apparatus that does not inherently include video playback capability. "Display-only video monitors" are not only computer monitors, but include any video display screen or video projector that does not include a television tuner or that requires a separate source device to render the video content.

The Commission should exercise the waiver authority provided by Section 203 in a timely and reasonable fashion to facilitate innovation and avoid inhibiting the introduction of new products and technologies. The Commission should consider only whether the apparatus is designed primarily for activities other than receiving or playing back video programming or, in the case of equipment designed for multiple purposes and capable of receiving and playing back video programming, whether that equipment's essential utility is derived from other purposes.

Consistent with the Commission's reasoning in the recent *ACS Order*, standalone software is not "apparatus" subject to amended Sections 303 and 330 of the Act. Moreover, a manufacturer should not be responsible for the compliance of any software not bundled with the apparatus at the time of sale. In addition, the Commission should exclude commercial video equipment from its final closed captioning rules.

The Commission should defer making rules regarding the apparatus-related issues raised in the *NPRM* that will be implicated in the forthcoming second VPAAC report. Specifically, the Commission should defer making any regulations relating to interconnection mechanisms and standards, or requiring that an apparatus retain a user's settings between viewing sessions, until the VPAAC has the opportunity to provide its further recommendations.

CEA urges the Commission to provide an initial phase-in period of at least 24 months for apparatus manufacturers to implement the Section 203 captioning requirements. The CVAA does not specify when the captioning requirements must become effective and the VPAAC recommended timeframes only apply to the captioning of IP-delivered video programming and not to apparatus compliance. A phase-in of at least 24 months is entirely consistent with similar, prior implementations of technical requirements.

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The Consumer Electronics Association ("CEA") hereby responds to the Notice of Proposed Rulemaking ("NPRM")¹ seeking comment on rules proposed to implement the provisions of the Twenty-First Century Communications and Video Accessibility Act of 2010 ("CVAA") governing the closed captioning of Internet protocol ("IP")-delivered video programming (hereinafter "IP captioning").²

I. INTRODUCTION

CEA is the principal U.S. trade association of the consumer electronics and information technologies industries.³ Its members develop the devices that enable consumers to access their

¹ Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010, MB Docket No. 11-154, Notice of Proposed Rulemaking, FCC 11-138 (rel. Sept. 19, 2011) ("NPRM").

² Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 124 Stat. 2751 (2010) (as codified in various sections of Title 47 of the United States Code). The law was enacted on October 8, 2010 (S. 3304, 111th Cong.). *See also* Amendment of Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-265, 124 Stat. 2795 (2010), also enacted on Oct. 8, 2010, to make technical corrections to the CVAA and the CVAA's amendments to the Communications Act of 1934.

³ CEA's more than 2,000 member companies lead the consumer electronics industry in the development, manufacturing and distribution of audio, video, mobile electronics, communications, information technology, multimedia and accessory products, as well as related services, that are sold through consumer channels. Ranging from giant multi-national

favorite video programming, other content, and applications when and where they want. CEA was very involved in the CVAA legislative process and continues to engage extensively in regulatory and standards activities relating to accessibility, including the important issues raised in the NPRM. CEA and its member companies are committed to working closely with the Commission and the disability community, including the deaf and hard of hearing community, to provide all consumers with products and services that meet their needs. Specifically, CEA is a member of the Video Programming Accessibility Advisory Committee ("VPAAC") and worked closely with the other members of Working Group 1 in developing VPAAC's IP Closed Captioning Report (the "VPAAC Report"), an important input to the NPRM.⁴

Congress intended for the VPAAC, a broad-based, technical-oriented committee, 5 to develop thoughtful recommendations that reflect the balance between promoting accessibility and maintaining flexibility for continued innovation. CEA is pleased to have been part of this

corporations to specialty niche companies, CEA members cumulatively generate more than \$190 billion in annual factory sales and employ tens of thousands of people.

⁴ First Report of the Video Programming Accessibility Advisory Committee on the Twenty-First Century Communications and Video Accessibility Act of 2010: Closed Captioning of Video Programming Delivered Using Internet Protocol, July 13, 2011, available at http://transition.fcc.gov/cgb/dro/VPAAC/First VPAAC Report to the FCC 7-11-11 FINAL.pdf ("VPAAC Report").

⁵ To ensure a true cross-section of stakeholders, Chairman Genachowski appointed 45 members to the VPAAC, of which "ten (10) represent interests of persons with disabilities; six (6) represent interests of closed captioning and video description providers; eleven (11) represent device manufacturers; four (4) represent Internet and software companies; two (2) represent broadcasters; and twelve (12) represent video programming distributors and providers." Public Notice, FCC, Video Programming And Emergency Access Advisory Committee Announcement Of Members, DA 10-2320 (rel. Dec. 7, 2010), as corrected by Public Notice, FCC, Erratum – Video Programming And Emergency Access Advisory Committee Announcement Of Members (rel. Jan. 7, 2011). Individual members were chosen based on their "technical knowledge and engineering expertise" to ensure the VPAAC could fulfill its assigned duties and tasks. CVAA § 201(b).

process and is confident that the "rough consensus" that produced the VPAAC Report successfully fulfills the committee's mandate to provide the Commission with guidance on the technical implementation of the CVAA requirement to caption IP-delivered programming.

These comments focus on the scope and implementation of Section 203 of the CVAA, regarding closed captioning capability requirements for apparatus designed to receive or play back video programming, and devices designed to record video programming, including IPenabled devices. ⁷ Section 203 amends Sections 303(u) and 330(b) of the Communications Act of 1934, as amended (the "Act") and adds a new Section 303(z).8 Section 203 and the other provisions of Title II of the CVAA represent Congress's careful approach to increase the accessibility of video programming while preserving manufacturers' flexibility to ensure continued innovation.

The NPRM is one of the Commission's first ventures into the regulation of online content. Although the Commission must of course fulfill its statutory mandate to increase accessibility for consumers who are deaf or hard of hearing, it should not lose sight of the novel issues and questions presented in the online world. Indeed, Congress intended that the Commission "afford entities maximum flexibility in meeting the requirement that video programming delivered using Internet protocol be captioned."9

Thus, the Commission should carefully craft rules for closed captioning of IP-delivered video programming that provide the consumer electronics industry with the continued flexibility

⁶ VPAAC Report at 34.

⁷ CVAA § 203(a)-(b). Thus, although these comments provide examples of devices outside the scope of Section 203, other devices may also be excluded.

⁸ See 47 U.S.C. §§ 303(u), (z) and 330(b).

⁹ See H.R. Rep. No. 111-563, at 31 (2010) ("House Committee Report").

to innovate for the benefit of all consumers, including those who seek to use captioning. In addition, as discussed herein, the Commission should not adopt the amorphous "at least the same quality" standard when comparing IP captions to traditional television captioning.

II. THE COMMISSION SHOULD PROMOTE INNOVATION BY ENSURING FLEXIBILITY IN ITS IMPLEMENTATION OF IP CAPTIONING RULES.

A. The Commission Should Adopt Specific Minimum Technical Captioning Requirements to Ensure a Functionally Equivalent Captioning Experience, If Achievable.

The *NPRM*'s proposed mandate that IP captioning be of "at least the same quality" as television captions is ambiguous and should be revised. It would create uncertainty, inhibit innovation in captioning, and serve as a ceiling, not a floor, in the development of new and effective forms of IP captioning.¹⁰ Instead, the Commission should adopt minimum technical requirements that will help ensure functional equivalency and preserve flexibility.

There are significant differences between the physical and technical characteristics of traditional television sets and those of mobile or other devices used to view IP-delivered video programming, including screen size, monitor resolution, battery power, and processing capacity. Moreover, consumers' viewing habits are rapidly changing with the increased availability of IP-delivered video, music, and other applications. For instance, in a dramatic departure from traditional television viewing, IP-delivered video programming may be just one of many applications that a consumer may be running and using on the screen of an IP-enabled

 $^{^{10}}$ See NPRM¶ 18 (The Commission proposes "to adopt a rule requiring the captioning of IP-delivered video programming to be of at least the same quality as the television captions for that programming.").

¹¹ For example, apparatus using screen displays of less than 13 inches may not be able to achieve the same caption display position as originally designated by the VPO.

device.¹² Given these differences, such an amorphous mandate would create uncertainty and inhibit innovative captioning delivery that may be both necessary and desirable.

A preferable approach would be the adoption of specific minimum technical requirements that would ensure that IP captions are functionally equivalent to television captions, if achievable. With IP captions containing information functionally equivalent to television captions to the extent achievable, the Commission's requirements will help ensure that covered apparatus provide an IP captioning experience equivalent to or better than the television captioning experience. This approach would promote the flexible implementation of IP captioning that would also meet the needs of the disability community.

B. The Commission Should Adopt the VPAAC Report's Recommendation on a Uniform Format Standard to Ensure Consumer Access to IP Captioning and to Avoid Industry Having to Support Each and Every Possible Format.

The *NPRM* properly avoids technical mandates, but the Commission should adopt a uniform format standard as a safe harbor to provide clarity and certainty to all stakeholders. Manufacturers of covered apparatus cannot be expected to support any and every possible delivery format. Requiring such support would be costly and inefficient without furthering Congress's intent to increase the accessibility of video programming.

¹² See, e.g., Mike Chapman, Fighting for Attention -The Web is Drawing Viewers' Eyes Away From TV, Yet It's Far From the Only Distraction (June 7, 2011), http://www.adweek.com/news/television/fighting-attention-132235; Accenture, Consumers of All Ages Are Going Over-the-top, at 7 (2011), http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture_Communications_Media_Entertainment_Video-Over-Internet_Consumer_Usage_Survey.pdf ("There is no longer any delivery channel or device that receives the uninterrupted attention of viewers. The viewing experience is now made up of an ever changing mix of different devices for different reasons, all at the same time.").

¹³ See, e.g., VPAAC Report at 13-14 & 17. The proposal to add the full degree of user control set forth in CEA-608/708 would likely prove to be quite burdensome in some cases.

¹⁴ See NPRM at App. A (proposed rule § 15.125(b)(1)-(5)).

The *NPRM* unnecessarily diverges from the VPAAC Report by proposing that the Commission "refrain from specifying any particular standard for the interchange format or delivery format of IP-delivered video programming . . ."¹⁵ In contrast, the VPAAC Report recommended the following.

• <u>Interchange Format</u>: The adoption of a single standard for the interchange format, in particular, the Society of Motion Picture and Television Engineers ("SMPTE") Timed Text ("SMPTE-TT") standard. ¹⁶

• <u>Delivery Format</u>:

- Consumer Video Player (Use Case #1) The adoption of a single standard for the delivery format, in particular, SMPTE-TT, where the IP-delivered video programming is sent directly to an Internet-connected consumer device containing a standardized video player.¹⁷
- Web Browser (Use Case #2) No single standard delivery format is needed where the IP-delivered video programming is rendered through a Web browser and any necessary browser plug-in(s).
- Managed Applications or Devices (Use Case #3) The delivery format may be non-standard and/or proprietary where the IP-delivered video programming is rendered by a managed application or device.

The Commission should accept the VPAAC Report recommendations by adopting the SMPTE-TT standard (i) as a "safe harbor" interchange standard and (ii) in the case of Consumer

¹⁵ NPRM ¶ 40. "Interchange format" is defined as "[t]he encoded caption data that preserves all of the original semantic information and text . . . and allows easy conversion to other formats." VPAAC Report at 18. *See also id.* at 22 ("By 'interchange format' we mean the format of closed-captioning data carried within television content as it is distributed from the content provider to programming distributors."). "Delivery format" is defined as "[t]he encoded caption data contained within a download or stream of content to a consumer device in either the standard interchange format or a different network-specific or video-player-specific format." *Id.* at 18.

¹⁶ VPAAC Report at 17, 26.

¹⁷ *Id.* at 27.

¹⁸ *Id.* at 19-20.

¹⁹ *Id.* at 20.

Video Players (Use Case #1), as a "safe harbor" delivery standard. Contrary to the Commission's concern,²⁰ the VPAAC Report represents a considered, near-consensus technical recommendation from a cross section of all stakeholders in providing IP captioning. With such broad agreement, the Commission should follow the VPAAC Report and adopt the SMPTE-TT standard as a safe harbor standard for interchange format and the Use Case #1 delivery format.

To be eligible for the safe harbor, the Commission should require a manufacturer or service provider to incorporate only the portion of the SMPTE-TT standard that provides the functionality needed to support closed captioning according to the Commission's current captioning standards as specified in 47 C.F.R. § 15.119 and 47 C.F.R. § 15.122. Guidelines for establishing this functionality are identified in SMPTE Recommended Practice 2052-10,²¹ which describes the critical process whereby captions authored in CEA-608 format may be machine-translated to the XML format used by SMPTE-TT.²² As the VPAAC Report notes, Recommended Practice 2052-10 is currently being used in production environments to repurpose television content for Internet use.²³

Adopting SMPTE-TT as a safe harbor will promote efficiency and certainty, thereby helping content providers, distributors, and manufacturers of covered apparatus to ensure reliable consumer access to IP captioning.²⁴ In particular, a single minimum interchange standard will

²⁰ See NPRM ¶ 57 (mentioning issue regarding lack of industry consensus).

²¹ VPAAC Report at 27 ("Captioning in Internet-delivered content created for playback on a standard consumer video player should be created under the guidelines established in SMPTE Recommended Practice 2052-10, *Conversion from CEA-608 Data to SMPTE-TT*, operated in "Preserved" mode (see Sec. 5.5).").

²² *Id.* at 26-27.

²³ *Id.* at 26.

 $^{^{24}}$ See NPRM¶ 57 (acknowledging that a lack of standards could make access to IP captioning "more difficult and costly to achieve").

reduce the cost and complexity of authoring content by minimizing the need for VPOs to support multiple standards and to potentially re-caption Internet videos.²⁵ Similarly, where IP-delivered video content is rendered by a consumer device using a standardized video player (Use Case #1), a single minimum delivery format ensures that a manufacturer of such apparatus can readily support and render IP captions.²⁶

As long as a device supports the safe harbor standard, the Commission should deem the device compliant with the Commission's rules. In the case of Web browser-rendered video programming (Use Case #2) and video programming delivered through managed applications and devices (Use Case #3), no similar justification exists for adopting a safe harbor delivery standard so long as the IP captioning is functionally equivalent to the television captioning as discussed above.²⁷

Adopting the SMPTE-TT standard as a safe harbor would also advance, not limit, innovation in captioning technology. Section 203(e) of the CVAA requires the Commission to allow covered entities to meet the statutory captioning requirements of new Sections 303(u) and (z) and Section 330(b) of the Act "through alternative means than those prescribed by regulation." This "alternative means" provision demonstrates Congress's commitment to

²⁵ VPAAC Report at 17.

²⁶ See id. at 11, 18-19.

²⁷ See id. at 20. Thus, a device should be free to use any functionally equivalent means of decoding captioning that works with each specific video programming service with which it is designed to be used (e.g., a decoding tool included within a pre-installed software application intended for receiving/viewing the service).

²⁸ See NPRM ¶¶ 40, 57 (raising issue that mandating a single standard could restrict industry innovation).

²⁹ CVAA § 203(e).

"maximum flexibility"³⁰ and enables industry to continue to innovate even while the SMPTE-TT standard would help provide certainty as a safe harbor.³¹

Even with the adoption of SMPTE-TT as a safe harbor delivery standard for device compliance under Usage Case #1, the Commission should note that incorporation of the SMPTE-TT standard – or indeed, any alternative means of meeting the full range of functional criteria in Section 15.125 – may prove to be infeasible for a particular device due to such limitations as inadequate memory or processing power.³² For apparatus using a screen that is less than 13 inches in size, the captioning requirements are subject to the four Section 716 achievability factors. A captioning experience equivalent to television captioning may not be achievable, but to the extent a lower level of capability – some subset of the Section 15.125 capabilities – is achievable on a device with a screen size less than 13 inches, the Commission should clarify that such an approach is permitted under the Commission's final captioning rules.

III. CONGRESS EXPLICITLY CARVED OUT MANY TYPES OF APPARATUS FROM THE CAPTIONING REQUIREMENTS.

Section 203 of the CVAA establishes captioning capability requirements for "apparatus designed to receive or play back video programming transmitted simultaneously with sound,"

³⁰ See House Committee Report at 31 ("The Committee intends to afford entities maximum flexibility in meeting the requirement that video programming delivered using Internet protocol be captioned."). The Commission should consider that if a device is capable of decoding some widespread form of closed-captioning and/or any form of captioning used with the specific video programming service(s) it is designed to access, then it should be found compliant with the statutory captioning requirements.

³¹ If needed, the Commission could adopt additional interchange standards or delivery standards under Use Case #1 as safe harbors. Any such standards must be developed within an open process by recognized industry standard-setting organizations and available on reasonable and non-discriminatory ("RAND") licensing terms.

³² This could be the case, for example, with certain entry-level mobile phones or feature phones that lack the memory and processing "horsepower" to accommodate SMPTE-TT.

and "apparatus designed to record video programming transmitted simultaneously with sound," including IP-enabled devices.³³ At the same time, Section 203 carefully delineates classes of apparatus to which these captioning capability requirements either do not apply or, under certain conditions, may not apply.³⁴

A. Technical Feasibility is a Pre-Condition to Applying the Captioning Requirements to Apparatus Designed to Receive or Play Back Video Programming.

As an initial matter, Section 203(a) amends Section 303(u) of the Act to provide that the Commission shall "[r]equire that, *if technically feasible*[,]... apparatus designed to receive or play back video programming... be equipped with built-in closed caption decoder circuitry or capability designed to display closed-captioned video programming." The CVAA thus takes the common-sense approach that manufacturers of such apparatus need not comply with the captioning capability requirements if it is not technically feasible to do so. An example of technical infeasibility would be an apparatus with only limited memory or processing power. Such a device may have only enough memory and processing power to receive or play back video programming, without the memory and processing power needed to overlay and

³³ CVAA § 203(a), (b). Apparatus designed to receive or play back video programming are required, if technically feasible, to "be equipped with built-in closed caption decoder circuitry or capability designed to display closed-captioned video programming." 47 U.S.C. § 303(u)(1)(A). In comparison, apparatus designed to record video programing are required, if achievable, to "enable the rendering or the pass through of closed captions . . . such that viewers are able to activate and de-activate the closed captions . . . as the video programming is played back on a picture screen of any size." *Id.* § 303(z)(1). Consistent with Section 303(z)(1), the Commission should revise proposed Section 15.126(b) to clarify that the rule applies to only video recording devices rather than "[a]ll devices." *See NPRM* at App. A (proposed rule § 15.126(b)).

³⁴ To be clear, by merely producing or offering a type of apparatus subject to Section 203, a manufacturer in no way assumes the obligations of a video programming owner ("VPO"), video programming distributor ("VPD"), or video programming provider ("VPP"), under other sections of the CVAA. *See also* CVAA § 2(a) (limitation on liability).

³⁵ 47 U.S.C. § 303(u)(1)(A) (emphasis added).

synchronize captions. As a second example, the absence of well-developed industry standards often acts as a barrier to technical feasibility.³⁶ For instance, apparatus captioning capability for 3D video programming, while possible in a laboratory setting, is not presently technically feasible on a commercial scale because industry is still working to develop robust standards for including captioning in such programming.³⁷ When the Commission adopts implementing rules for amended Section 303(u), it should expressly codify the "if technically feasible" limitation.

B. Section 203 Expressly Limits the Captioning Requirements to Only Apparatus "Designed to" Receive, Play Back, or Record Video Programming.

As amended by Section 203 of the CVAA, new Section 303 of the Act expressly requires only "apparatus *designed to* receive or play back video programming" and "apparatus *designed to* record video programming" to comply with the captioning capability requirements.³⁸ The *NPRM* impermissibly attempts to broaden the statutory language by seeking to "extend closed captioning requirements to the devices consumers *use* to access video programming" and by

³⁶ See NPRM ¶ 49 ("How should the Commission determine whether it is 'technically feasible' for apparatus to meet the requirements of Section 203?").

³⁷ CEA Engineering Committee R4.3 WG1 DTV Closed Captioning is currently working to develop a standard, CEA-708.1, for 3D closed captioning. Once completed, CEA-708.1 should provide industry, including VPOs, VPDs, VPPs, and apparatus manufacturers, with a technically feasible means of captioning 3D programming.

³⁸ 47 U.S.C. §§ 303(u)(1), (z)(1) (emphasis added). The Commission should clarify that Section 203 only requires covered apparatus to comply with the captioning requirements for "video programming delivered using Internet protocol that was published or exhibited on television with captions . . ." See 47 U.S.C. § 613(c)(2)(A); see also 47 U.S.C. § 613(h)(2) (definition of "video programming"). In other words, Section 203 does not impose any legal obligation on manufacturers of covered apparatus to display closed captioning contained in content other than such video programming. Nonetheless, covered apparatus will likely display closed captioning for any video content that utilizes the same captioning standard as the device uses for covered video programming.

stating that Section 203(a) applies to "essentially all apparatus." The Commission should reevaluate this proposal in light of the plain language of amended Section 303 cited above.

The statutory language is based on apparatus design, not consumers' "use" of the apparatus, which could be for purposes completely unforeseen by manufacturers. Thus, the captioning capability requirements apply only to apparatus *designed* – and thereby intended – by manufacturers for receiving, playing back, or recording video programming. The plain meaning of "design" requires the Commission to limit covered apparatus to those devices intended by manufacturers to be specifically used to receive, play back, or record video programming. ⁴²

The mere inclusion of video hardware and/or a generic media player in a particular apparatus cannot alone justify a finding that the device is an apparatus designed to receive, play back, or record video programming. For instance, a device specifically designed to record and/or play back only consumer-generated content (*e.g.*, a simple camcorder) would necessarily require

³⁹ See NPRM¶ 48 (emphasis added).

⁴⁰ See Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010, CG Docket No. 10-213, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-151, ¶ 183 (rel. Oct. 7, 2011) ("ACS Order") (finding that "consumer use patterns may not always accurately reflect design").

⁴¹ See, e.g., Dictionary.com, Design, http://dictionary.reference.com/browse/design (last visited Oct. 18, 2011) (defining "design" as "to intend for a definite purpose"); see also Merriam-Webster, Design, http://www.merriam-webster.com/dictionary/design (last visited Oct. 18, 2011) (defining "design" as "to devise for a specific function or end").

⁴² For instance, covered recording devices should not include general-purpose external hard drives or removable memory cards. Similarly, a general purpose personal computer or tablet with Digital Living Network Alliance ("DLNA") interconnection mechanisms should not be deemed a covered recording device unless it includes video recording software that enables the recording of video programming at the time of sale.

video hardware and a media player without the manufacturer having any intent or design for the device to receive, play back, or record "video programming."

Moreover, application of a "consumer use" standard rather than a "design" standard would create real challenges for compliance and enforcement. A manufacturer cannot predict every way in which any individual consumer might attempt to use a particular product, and a manufacturer should not be required to include captioning functionality in a device based on the outside chance that someone could someday use it to access one full-length video program.

C. Section 203 Captioning Requirements Only Apply to Apparatus Involving Video Programming Transmitted by Wire or Radio.

The Commission should explain that its regulatory authority under the CVAA does not extend to fixed-media (DVD, Blu-ray DiscTM, and any successor format) players that only provide playback capability of video programming contained on fixed media. Section 203 of the CVAA amends Section 303 of the Act to specify that the captioning requirements apply only to those devices that can receive, play back or record "video programming *transmitted* simultaneously with sound." In the case of playback-only fixed-media players, no video programming is "transmitted" within the meaning of the statute. Such devices merely read, decode and render a digital file from a disc; they cannot tune, decode or display television signals, or IP-delivered video programming, of any kind, whether delivered by wire or radio. Congress has not granted the Commission authority through the CVAA or through any prior

⁴³ See 47 U.S.C. § 613(h)(2) ("For purposes of this section, section 303, and section 330: . . . The term 'video programming' means programming by, or generally considered comparable to programming provided by a television broadcast station, but not including consumer-generated media").

⁴⁴ CVAA §§ 203(a) (amending Section 303(u) of the Act), 203(b) (adding Section 303(z) of the Act) (emphasis added).

statute to regulate apparatus that do not receive any transmission through wire or radio. Nor can the Commission properly exercise its ancillary jurisdiction to cover such apparatus.⁴⁵

D. Achievability Determinations Should Be Consistent with the ACS Order.

In addition to the limitations discussed above, Congress recognized the challenges that manufacturers face in producing (i) apparatus designed to receive or play back video programming that use picture screens of less than 13 inches⁴⁶ and (ii) apparatus designed to record video programming. The CVAA therefore provides that these types of apparatus must comply with the applicable captioning capability requirements "only if" such compliance is "achievable." The Commission should interpret and apply the "achievable" standard for these classes of apparatus as it did for Advanced Communications Services ("ACS") pursuant to Section 716.⁴⁸ Manufacturers will undertake the initial achievability analysis as part the design and development process. The Commission will only have the opportunity to make an "achievable" determination in a complaint proceeding.⁴⁹ When conducting an achievability

⁴⁵ See, e.g., Am. Library Ass'n v. FCC, 406 F.3d 689, 703-705 (D.C. Cir. 2005) (discussing the Commission's lack of ancillary jurisdiction to regulate consumer electronic devices when those devices are not engaged in the process of radio or wire transmission); see also Comcast Corp. v. FCC, 600 F.3d 642 (D.C. Cir. 2010) (vacating the Commission's use of ancillary authority to regulate an Internet service provider's network management practices).

⁴⁶ The Commission has previously recognized the challenges associated with smaller screen sizes in the digital tuner context. *See, e.g., Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, Second Report and Order and Second Memorandum Opinion and Order, 17 FCC Rcd 15978, 15981 ¶ 9 (2002).

⁴⁷ 47 U.S.C. §§ 303(u)(2)(A), (z)(1). As noted above, the captioning capability requirements differ for these classes of apparatus.

⁴⁸ See, e.g., ACS Order ¶¶ 122-123 (taking a flexible, case-by-case approach, considering only the statutory factors, and giving each factor equal weight).

⁴⁹ See id. ¶ 123 (The Commission "will be applying the four achievability factors in the complaint process in those cases in which a covered entity asserts that it was 'not achievable' to make its equipment or service accessible.").

analysis, the Commission should give equal weight to each of the four factors set forth in Section $716(g)^{50}$ and apply them on a flexible, case-by-case basis.⁵¹

These achievability limitations are extremely important because they apply to many mobile devices, including smart phones and tablets, most of which have small screens. In particular, it may not be achievable for many feature phones or other entry-level mobile devices to comply fully with the captioning requirements because many such devices do not have the memory or processing power to play video while simultaneously overlaying and synchronizing IP captions.⁵² Without the achievability limitations, manufacturers would be under significant pressure to discontinue offering these less expensive, entry level devices that currently receive or play back video programming.

E. The "Display-Only" Exemption Should Apply to Any Apparatus That Does Not Inherently Include Video Playback Capability.

The CVAA explicitly exempts from the captioning capability requirements of Section 303(u)(1) "any apparatus or class of apparatus that are display-only video monitors with no playback capability." The Commission's rules should reflect that "display-only video monitors" are not only computer monitors, but include any video display screen or video projector that does not include a television tuner or that requires a separate source device to render the video content. Display-only video monitors are not capable of decoding a

⁵⁰ 47 U.S.C. § 617(g).

⁵¹ See NPRM \P 53.

⁵² Indeed, in some cases IP captioning may not be technically feasible, let alone "achievable," for such apparatus. It may not be possible for such devices to comply with all, or any, of the proposed technical requirements. *See NPRM* at App. A (proposed rule § 15.125(b)).

⁵³ 47 U.S.C. § 303(u)(2)(B).

⁵⁴ *See NPRM* ¶ 52.

compressed video transport stream, such as IP-delivered video streams. Any device which is only capable of displaying an uncompressed or "baseband" video signal therefore falls within this exemption.

F. The Commission Should Grant Waivers Promptly to Facilitate Innovation and Avoid Inhibiting the Introduction of New Products and Technologies.

The CVAA expressly authorizes the Commission, either "on its own motion or in response to a petition by a manufacturer," to waive the requirements of Section 303(u) of the Act "for any apparatus or class of apparatus" that has a *primary purpose* or *essential utility* other than receiving or playing back video programming. ⁵⁵ As explained in the legislative history, this waiver provision is similar to the ACS waiver provision in Section 716(h) of the Act "in that the Commission may, at its discretion, waive the requirements where, for instance, a consumer typically purchases a product for a primary purpose other than viewing video programming, and access to such programming is provided on an incidental basis." The Commission's timely exercise of its waiver authority will be critical to whether implementation of the CVAA fulfills Congress's innovation policy objectives. ⁵⁷

In considering whether to grant a waiver, the Commission must use the test set forth in amended Section 303(u) and should not deviate from it.⁵⁸ The only relevant considerations are whether the apparatus is "primarily designed for activities other than receiving or playing back video programming" or, in the case of equipment designed for multiple purposes and capable of

⁵⁵ 47 U.S.C. § 303(u)(2)(C) (emphasis added).

⁵⁶ S. Rep. No. 111-386, at 14 (2010) ("Senate Committee Report").

⁵⁷ Similar to waiver petitions in the ACS context, the Commission should allow Section 203 waiver petitioners to seek confidential treatment of information pursuant Section 0.459 of the Commission's rules. *See ACS Order* ¶ 199.

⁵⁸ See 47 U.S.C. § 303(u)(2)(C).

receiving or playing video programming, whether that equipment's "essential utility is derived from other purposes." Expanding the waiver analysis beyond the statutory text would have the unintended consequence of harming consumers and limiting technological innovation.

In seeking to determine the "primary purpose" or "essential utility" under these waiver standards, the Commission should look at the "core" function of the apparatus, as *intended by the manufacturer*. As discussed above with respect to covered equipment, the Commission should make clear that the determination of purpose or utility is made from the perspective of the manufacturer, and not from the perspective of the end user. A manufacturer cannot predict whether a single consumer might dedicate use of a particular device to accessing online video, even if the manufacturer's design intended the device to be used for purposes and utility unrelated to video. Thus, the Commission should look at such factors as the product's design features and how the product is marketed. Some tablets and smart phones, for example, may be appropriate apparatus to receive waivers if not otherwise exempt. As designed, the primary purpose and/or essential utility of these devices is to provide *mobile* communications, rather than simply receiving or playing back video programming.

⁵⁹ *Id.* § 303(u)(2)(C)(i)-(ii).

 $^{^{60}}$ See ACS Order ¶ 183 (requiring "an examination of the purpose or purposes for which the manufacturer . . . designed the product" and recognizing that "consumer use patterns may not always accurately reflect design").

⁶¹ See id. ¶ 185 (agreeing that "how [a product] is marketed is relevant to determining the primary purpose for which it is designed").

G. Consistent with the ACS Order, Standalone Software is Not Covered by Section 203, and a Manufacturer Should Not be Responsible for the Compliance of Any Software Not Bundled with the Apparatus at the Time of Sale.

The Commission should recognize that the use of the term "apparatus" in Section 203 of the CVAA limits the scope of the provision to physical devices, including the software bundled with such devices at the time of sale. Similar to the Commission's interpretation of "equipment" in Section 716(a)(1) of the Act, ⁶² the Commission should interpret "apparatus" to exclude standalone software. Much like "equipment," "apparatus" signifies a physical product, not a standalone virtual one. ⁶⁴

Moreover, in interpreting the scope of Section 203 of the CVAA, the Commission must particularly acknowledge the limitations on liability provided in Section 2(a) of the CVAA. For instance, Section 2(a) precludes holding an apparatus manufacturer liable for software that the end user acquires separately from the apparatus where the specification of such software is controlled by a third party.

⁶² See id. ¶ 58 (finding that Section 716(a)(1) "does not impose independent regulatory obligations on providers of software that the end user acquires separately from equipment used for [ACS]").

⁶³ See id. ¶¶ 60-62 (equating "equipment" to "physical machines and devices").

⁶⁴ See, e.g., Merriam-Webster, Apparatus, http://www.merriam-webster.com/dictionary/apparatus (last visited Oct. 18, 2011) (defining "apparatus" as "a set of materials or equipment designed for a particular use").

H. The Commission Should Avoid Applying the Section 203 Captioning Regulations to Commercial Video Equipment.

Congress only intended Section 203 to apply to "consumer devices" and not commercial video equipment. Accordingly, the Commission should generally exclude all commercial equipment from its final closed captioning rules. For instance, the Commission should provide certainty to manufacturers and explicitly exclude commercial video production equipment from the closed captioning requirements. This equipment – commercial cameras, recording decks, sound mixing equipment, production monitors, and other, related devices – is intended to be used by video content creation and distribution companies, and is not intended to be used by the general public. Moreover, employers, including video content creation and distribution companies, "are subject to accessibility obligations imposed under the ADA" – a more appropriate vehicle for any necessary workplace accessibility regulations.

Similarly, the Commission should refrain from applying its closed captioning regulations to commercial movie theater projectors. These projectors are used by commercial movie theaters generally for the public display of first-run movies. As commercial rather than consumer devices, these projectors should be explicitly excluded from the Commission's final closed captioning rules. In fact, the U.S. Department of Justice ("DOJ") has an open rulemaking regarding the public accommodation obligations of commercial movie theaters that may result in similar and possibly conflicting closed captioning regulations.⁶⁷ Accordingly, the Commission

⁶⁵ "Section 203(a) ensures that devices *consumers* use to view video programming are able to display closed captions . . . " *House Committee Report* at 30 (emphasis added); *Senate Committee Report* at 14 (emphasis added).

⁶⁶ ACS Order ¶ 173.

⁶⁷ See Nondiscrimination on the Basis of Disability; Movie Captioning and Video Description, U.S. Dept. of Justice, Advance Notice of Proposed Rulemaking, RIN 1190-AA63, 75 Fed. Reg. 43467, 43467 (July 26, 2010) (seeking public comment on revising the regulations

should exclude these commercial projectors from its closed captioning rules to avoid unnecessary and potentially conflicting regulations.

IV. THE COMMISSION SHOULD DEFER MAKING NEW RULES REGARDING CERTAIN APPARATUS-RELATED ISSUES RAISED IN THE NPRM.

No action is required on certain apparatus-related issues raised in the *NPRM* because no problem exists and/or the forthcoming second VPAAC report will further address these issues. The second VPAAC report will include the recommendations developed by Working Group 4 regarding the "[a]ccessibility of user interfaces [and] apparatus functions . . . [as well as the] [i]dentification and recommendation of standards, protocols, and procedures to enable access to these various features and functions." The Commission should defer implementing regulations in these areas until it has the opportunity to fully consider the recommendations of this forthcoming VPAAC report. Specifically, the VPAAC's recommendations, as required by statute, will provide further guidance regarding interconnection mechanisms and standards as well as the retention of user settings between viewing sessions.

[&]quot;implementing title III of the Americans with Disabilities Act (ADA) in order to establish requirements for making the goods, services, facilities, privileges, accommodations, or advantages offered by movie theater owners or operators at movie theaters accessible to individuals who are deaf or hard of hearing or who are blind or have low vision by screening movies with closed captioning or video description").

⁶⁸ See CVAA § 201(e)(2)(F).

⁶⁹ VPAAC, By-Laws at 1, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-304060A1.doc (last visited Oct. 14, 2011).

⁷⁰ See, e.g., NPRM¶ 55.

⁷¹ See CVAA § 201(e)(2)(F) ("With respect to user interfaces, a recommendation for the standards, protocols, and procedures used to enable the functions of apparatus designed to receive or display video programming transmitted simultaneously with sound (including apparatus designed to receive or display video programming transmitted by means of services using Internet protocol) to be accessible to and usable by individuals with disabilities.").

Under the CVAA, the Commission must require that "interconnection mechanisms and standards for digital video source devices are available to carry from the source device to the consumer equipment the information necessary to permit or render the display of closed captions."⁷² At this time, no regulations are needed.⁷³ All video interconnection mechanisms available today carry the information necessary to "render" the required closed captions. For example, High Definition Multimedia Interface ("HDMI") permits the rendering of closed captions, but it must be understood that the captions and video are decoded in the source device and carried as opened captions to the display, which acts only as a monitor.⁷⁴ Rather than focusing on legacy interconnection mechanisms, such as HDMI, the Commission should focus on the emerging IP-based interconnection mechanisms to ensure support for the carriage of closed captioning information.⁷⁵ Requiring the carriage of closed captioning data over the HDMI connection would require substantial revisions to the standard, which could take years, and substantial redesign of the chipsets and associated end-user products.⁷⁶ With the relevant source devices that deliver video content over HDMI (e.g., set-top boxes) already required to render captions prior to transmitting the video signal, the costs of requiring the carriage of closed caption information outweighs any benefit.

⁷² 47 U.S.C. § 303(z)(2) (emphasis added).

⁷³ The VPAAC did not provide any recommendations for requirements related to interconnection mechanisms and standards. *See generally* VPAAC Report.

⁷⁴ Similarly, component video interfaces provide exactly the same functionality for analog high definition connections.

⁷⁵ For instance, the DLNA Interoperability Guidelines provide a set of interconnection mechanisms that support the carriage of closed captioning information.

⁷⁶ See Ex Parte Letter from Jim Morgan, Director and Counsel, Sony Electronics, Inc. to Marlene H. Dortch, Secretary, FCC, MB Docket No. 11-154, at 2 (filed Oct. 12, 2011).

In addition, the Commission should refrain for the present time from requiring that an apparatus retain a user's settings between viewing sessions⁷⁷ at least until the Commission has the opportunity to consider the forthcoming VPAAC recommendations.⁷⁸ Although the VPAAC Report recommends that an apparatus maintain such user settings between viewing sessions,⁷⁹ the VPAAC was unable to reach agreement on a timeline for implementation of this requirement.⁸⁰

More fundamentally, the Commission should defer implementing any regulations regarding the retention of user settings until it can consider and incorporate the VPAAC's forthcoming further guidance on this issue. This would enable the Commission to better coordinate and harmonize how the various user accessibility settings, including closed captioning, will be retained between viewing sessions, avoiding possible consumer frustration and minimizing the burden on apparatus manufacturers.

V. AN INITIAL PHASE-IN PERIOD OF AT LEAST 24 MONTHS IS NEEDED FOR COVERED ENTITIES TO IMPLEMENT THE SECTION 203 CAPTIONING REQUIREMENTS.

Based on prior implementations of other similar technical requirements, the Commission should provide apparatus manufacturers with at least 24 months to phase in the IP captioning requirements of Section 203. During the phase-in period, the Commission would refrain from commencing an enforcement action against an apparatus manufacturer for any alleged violation

⁷⁷ *NPRM* ¶ 56.

⁷⁸ VPAAC Working Group 4 is responsible for developing the recommendations as set forth in CVAA § 201(e)(2)(F)-(H), which include recommendations for the accessibility of user interfaces for apparatus designed to receive or display video programming. *See* VPAAC WG4, http://vpaac4.wikispaces.com/home (last visited Oct. 14, 2011).

⁷⁹ VPAAC Report at 15.

⁸⁰ *Id.* at 34.

of the IP captioning requirements.⁸¹ As the Commission correctly recognizes, the CVAA "does not specify the timeframe by which [the captioning] regulations must become effective." Furthermore, the VPAAC Report's recommended time frames only apply to the captioning of IP-delivered video programming and not to apparatus captioning capability requirements.⁸³ A phase-in of at least 24 months is entirely consistent with similar prior technical requirement implementations, including closed captioning in digital television receivers (as noted in the *NPRM*), ⁸⁴ ACS, ⁸⁵ wireless hearing aid compatibility, ⁸⁶ E911 location accuracy requirements in handsets, ⁸⁷ V-Chip requirements in television receivers, ⁸⁸ CableCARD requirements.⁸⁹ and

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⁸¹ See ACS Order ¶ 112 (explaining that the ACS complaint process will not be available to consumers until the end of the phase-in period).

⁸² NPRM ¶ 60 (citing CVAA § 203(d)).

⁸³ See VPAAC Report at 30.

⁸⁴ See Closed Captioning Requirements for Digital Television Receivers, Report and Order, 15 FCC Rcd 16788, 16807-08 ¶¶ 56-58 (2000) (providing a 24-month phase-in period).

⁸⁵ See ACS Order ¶¶ 107-110 (providing a 24-month phase-in period).

⁸⁶ See Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, Report and Order, 18 FCC Rcd 16753, 16780 ¶ 65 (2003) (providing a 24-month phase-in period to meet the initial wireless hearing aid compatibility requirements).

⁸⁷ See Wireless E911 Location Accuracy Requirements, Report and Order, 22 FCC Rcd 20105, 20112 ¶ 17 (2007), *voluntarily vacated*, Rural Cellular Ass'n v. FCC, 2008 U.S. App. LEXIS 19889 (D.C. Cir. Sept. 17, 2008) (providing a 5-year phase-in period for compliance at the PSAP level).

⁸⁸ See Technical Requirements to Enable Blocking of Video Programming based on Program Ratings, Report and Order, 13 FCC Rcd 11248, 11257 ¶ 23 (1998) (providing television manufacturers with an approximately 22-month total phase-in period – approximately 16 months for compliance of at least half of their new product models and an additional 6 months for the remaining new models); see also 47 C.F.R. § 15.120.

⁸⁹ See Implementation of Section 304 of the Telecommunications Act of 1996, Report and Order, 13 FCC Rcd 14775, 14803 ¶ 69 (1998) (providing an approximately 6.5-year phase-in period for CableCARD set-top boxes); see also 47 C.F.R. § 76.1204.

digital tuner requirements for television sets. Failure to provide the needed 24-month phase-in will unduly disrupt the product development cycle of apparatus manufacturers, causing unnecessary delays in new product releases and increased apparatus costs. In addition, the Commission should clarify that any apparatus developed and offered for sale prior to the promulgation of the final rules is exempt from compliance with Section 203 of the CVAA.

⁹⁰ See Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television, Second Report and Order and Second Memorandum Opinion and Order, 17 FCC Rcd 15978, 15996 ¶ 40 (2002), as modified, Requirements for Digital Television Receiving Capability, Second Report and Order, 20 FCC Rcd 18607, 18607 ¶ 1 (2005) (providing television manufacturers with a phase-in period totaling more than four years); see also 47 C.F.R. § 15.117(i).

VI. CONCLUSION

CEA welcomes the opportunity to continue to serve as a resource for the Commission as it implements the IP captioning provisions of the CVAA. CEA urges the Commission to proceed cautiously and adhere closely to the statutory framework established in Title II of the CVAA.

Respectfully submitted,

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